

IN THE CLAIMS

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

Claims 1-16. (Cancelled)

1 17. (currently amended) A microsequencer for use as a real-time Bluetooth baseband
2 controller comprises:

3 timer circuitry operably coupled to receive a requested timer counting value and to
4 announce when the timer counting value has elapsed;

5 temporary data storage circuitry operably coupled to store data, wherein the temporary
6 data storage circuitry includes registers of different size;

7 a data storage logic module, wherein the data storage logic module determines which
8 available register should be used for storing data based upon the size of the data that is to be
9 temporarily stored;

10 a plurality of Bluetooth and native clocks operably coupled to support timing
11 functionality of the timer circuitry according to Bluetooth specifications when in a master mode;
12 and

13 a plurality of externally-driven Bluetooth and native clocks operably coupled to support
14 timing functionality of the timer circuitry according to Bluetooth specifications when in a slave
15 mode.

Claims 18 – 21 (Cancelled).

1 22. (original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 64-bit storage register.

1 23. (original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 48-bit storage register.

1 24. (original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 32-bit storage register.

1 25. (original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 16-bit storage register.

1 26. (original) The microsequencer of claim 17 wherein the temporary data storage
2 circuitry includes a 64-bit register, a 48-bit register, a 32-bit register and a 16-bit register.

 27. (cancelled)

1 28. (previously presented) The microsequencer of claim 17 wherein the timer
2 circuitry comprises at least four timers.

1 29. (currently amended) The microsequencer of claim 17 wherein the timer circuitry
2 comprises at least eight timers.

1 30. (currently amended) The microsequencer of ~~claim 27~~ claim 17 further comprises
2 timer control logic circuitry for controlling the operation of the at least eight timers.

1 31. (original) A microsequencer for use as a real-time Bluetooth baseband controller,
2 comprising:

3 eight timers to provide traditional timer functionality;
4 timer control logic circuitry;
5 an externally driven Bluetooth clock;
6 an externally driven real-time clock;
7 a native Bluetooth clock;
8 a native real-time clock;
9 a 64-bit register for temporarily storing computational data;
10 a 48-bit storage register for temporarily storing computational data;
11 a 32-bit storage register for temporarily storing computational data;
12 a 16-bit storage register for temporarily storing computational data; and
13 data storage logic circuitry for determining which of the temporary storage registers is to
14 store a piece of data that is to be temporarily stored.

1 32. (original) The microsequencer of claim 31 wherein the period of one Bluetooth
2 clock cycle is equal to 312.5 real-time clock cycle periods.

1 33. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include an externally driven Bluetooth clock.

1 34. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include a native Bluetooth clock.

1 35. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include an external real-time clock.

1 36. (New) The microsequencer of claim 17 wherein the plurality of native and
2 externally driven clocks include a native real-time clock.